Frontiers in Biological Psychiatry Course

July 6-10, 2015

For information and registration:
This course is a joint effort between the Pasteur Institute Teaching department and the Bio-Psy Laboratory of Excellence (Labex)* and its partners to promote cutting-edge scientific training in Biological Psychiatry.

Exciting advances in Neurosciences and Genomics are transforming research in Psychiatry into a highly dynamic and fast-moving field. The next 10-year period is likely to be “the decade of psychiatric disorders as research on mental illness is reaching an inflection point where insights from neuroscience and genetics will transform our understanding of psychiatric disorders” (Peter Campbell, Nature Editor). These developments should allow better understanding of the origins and biological mechanisms of complex diseases such as depression, schizophrenia, addiction, and other disorders. Ongoing progress is also leading to the redefinition of the boarders between disorders and is opening novel prospects for treatment and prevention. The aim of the Frontiers in Biological Psychiatry (FBP) Course is to give the participants** an opportunity to get acquainted with and hopefully participate in the exciting development of the field.

The FBP Course gathers a team of international experts in both clinical psychiatry and basic research in neuroscience, genetics, and development. During this intense week, a combination of lectures and tutorial sessions will guide the participants through the most up-to-date openings in psychiatry, through the methodological approaches that have made them possible. Beyond the training sessions, on-site visits and discussions with experts will be organized to foster exchanges and convey curiosity for research among clinicians as well as understanding of the challenges facing clinicians among scientists.

**Expected attendants are clinicians and researchers in their early training. International applications are encouraged. Language of the course is English.

Registration fees for members of Bio-Psy teams and of FondaMental Expert Centers accepted to the course will be supported by the Labex.

Patricia Gaspar, Marika Nosten-Bertrand, Stéphane Jamain
Course organizers
Uwe Maskos
Course coordinator
Jean-Antoine Girault
Bio-Psy Director
Brigitte Bouchard
Bio-Psy Executive Director
# Frontiers in Biological Psychiatry

## Monday July 6th

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<th>Time</th>
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| 9:00 – 9:30| **Welcome and introduction to the course**  
Jean-Antoine Girault (Inserm, UPMC, Labex Bio-Psy), Course organizers          |
| 9:30 – 11:00| **What is the future of nosography in Psychiatry?**  
David Kupfer (Pittsburgh University)  
Marion Leboyer (Inserm, Fondamental)                        |
| 11:00 – 12:30| **Contributions and challenges of genetics in Psychiatry**  
Paul Lichtenstein (Karolinska Institute)  
Stéphane Jamain (Inserm)  
Thomas Bourgeron (Pasteur Institute) |
| 12:30 – 13:30| Lunch                                                                                         |
| 14:00 – 16:00| **Tutorial 1**  
- How to identify phenotypes common to different disorders?  
- Use of neuropsychology tests and behavioral scales  
Richard Delorme (Robert Debré Hospital, Fondamental)  
Andrei Szoke (Inserm, Fondamental), Psychologists from Expert Centers                      |
| 16:00 – 18:00| - How to identify and confirm the role of a mutation?  
Stéphane Jamain (Inserm)  
Thomas Bourgeron (Pasteur Institute) |

## Tuesday July 7th

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| 9:30 – 11:00| **How can Rodents be used as translational models in psychiatric disorders?**  
PV Piazza (Inserm)                        |
| 11:00 – 12:30| **From cellular and animal models to gene therapy**  
Stéphane Palfi (Henri Mondor Hospital)                   |
| 12:30 – 13:30| Lunch                                                                                         |
| 13:30 – 14:00| Article presentation by students                                                               |
| 14:00 – 18:00| **Tutorial 2**  
- Scoring animal behavior/ analysis in humans, conductance tests, evoked sensory potentials  
Marika-Nosten-Bertrand (Inserm), Philippe Faure (CNRS), Uwe Maskos (Pasteur Institute)  
- Analysis of optogenetics experiments  
Eric Burguière (Inserm), Luc Mallet (Inserm)   |
### Wednesday July 8th

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| 9:30 – 12:30 | **Functional imaging: neuronal circuits in action** (lecture held at Neurospin)  
*Mary Phillips* (Pittsburg University) |
| 12:30 – 13:30| Lunch                                                                |
| 13:30 – 14:00| Article presentation by students                                    |
| 14:00 – 18:00| **Site visit and Tutorial 3**  
Identification of areas of interest on brain images  
*Josselin Houenou (Inserm, Fondamental) and members of CEA Neurospin* |

### Thursday July 9th

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| 9:30 -11:00  | **Environment and psychiatric disorders: a focus on childhood trauma**  
*Bruno Etain* (Inserm, Fondamental) |
| 11:00- 12:30 | **Molecular consequences of exposure to childhood trauma**  
*Isabelle Mansuy* (Brain research institute, Zurich) *(to be confirmed)* |
| 12:30 – 13:30| Lunch                                                                |
| 13:30 – 14:00| Article presentation by students                                    |
| 14:00 – 18:00| **Tutorial 4:**  
- Epigenetic modifications  
*Stéphane Jamain (Inserm), Lucile Marion-Poll (Inserm)*  
- Connectomics and neuronal networks  
*Patricia Gaspar (Inserm)* |

### Friday July 10th

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| 9:00 – 11:00 | Molecules for treatment: from current workhorses to new prospects  
*Ronald Duman* (Yale University) *(to be confirmed)* |
| 11:00 – 12:30| Primal threats: the neural circuitry of social and predator fear  
*Cornelius Gross* (EMBL, Monterotondo) |
| 12:30 – 13:30| Lunch                                                                |
| 13:30 – 14:00| Article presentation by students                                    |
| 14:00 – 16:00| **Visit of the Pasteur Institute Center for Translational research or CIH (immune phenotyping)** *(to be confirmed)* |
| 16:00 – 18:00| General discussion                                                   |